

# THE UNIVERSITY OF BRITISH COLUMBIA | OKANAGAN



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**08 October 2008**

**To:** Okanagan Senate  
**From:** Learning and Research Committee  
**Re:** UBC Okanagan Strategic Research Plan (endorsement)

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The Learning and Research Committee is pleased to recommend the following to Senate:

**Motion:** *That Senate endorse the Strategic Research Plan for UBC Okanagan as presented by the Learning and Research Committee.*

### **Background**

The Provost, Dr. Abd-El-Aziz presented the UBC Okanagan Strategic Research Plan for endorsement by the Learning and Research Committee. The Committee unanimously agreed to recommend the enclosed Strategic Research Plan for Senate endorsement in October 2008.

Respectfully Submitted,  
Mr. Peter Arthur  
Chair, Learning and Research Committee



UNIVERSITY OF BRITISH COLUMBIA  
OKANAGAN

**STRATEGIC RESEARCH  
PLAN**

**2009 – 2014**



## MESSAGE FROM THE PROVOST

UBC Okanagan is a burgeoning new institution that, despite its youth, has legitimate claim to the wisdom of long years. Established in 2005, this is nevertheless a fully-fledged campus in the University of British Columbia system and, as such, it rests firmly on nearly a century of UBC history – on the administrative expertise and the high scholarly standards of one of the top 40 research universities in the world. This new institution was also founded on the former campus of Okanagan University College, from which it inherited a fine teaching tradition – and the core of an experienced and highly qualified faculty.

In setting out its Academic Plan in early 2005, UBC Okanagan declared its intent to be “A Locally Responsive, Globally Conscious Community,” a commitment that is well worth keeping.

With this document, we have taken a resolute step toward turning that vision into action, in one of the most important areas that this or any university can pursue: research. Thanks to the work of a dedicated Research Plan Steering Committee of UBC Okanagan faculty, students and staff, we now present this Strategic Research Plan – a focused vision of excellence, interdisciplinarity and integration.

This document is intended to serve three purposes:

- To communicate the research vision we desire to achieve in the next five years.
- To translate the research imperatives in the Academic Plan into actionable strategies.
- To serve as a decision-making tool for resource allocation and development.

We are indebted to all those who devoted time to this project over the last 12 months – all those internal and external stakeholders who participated in consultations, speaking up on behalf of their areas of interest and, especially, those committee members who worked so hard to produce a document that is coherent and strategic, a document that breathes life into our ambition to be “locally relevant, globally conscious.”

I would like to extend my thanks – and my admiration – and commend to you this first UBC Okanagan Strategic Research Plan.



## OUR VISION

**UBC Okanagan aspires to build a research environment that is integrated, interdisciplinary and objectively excellent.**

Our size will be an asset; we have no plans to be the biggest institution in any field, but we will strive, always, to be the best. Because we are small, our researchers will contribute directly to the university's teaching and learning mission; and our students will contribute to our research: it is our pledge that every UBC Okanagan student will have a chance to participate in an advanced scholarly research project. Because we are small, our researchers will find it easier to collaborate across disciplines: it is our pledge to build the physical and social infrastructure necessary to support those connections. We also will reach beyond our own walls, engaging regional and global communities of interest to identify research opportunities and to forge partnerships.

Excellent research requires excellent facilities, and this plan will set targets and benchmarks for physical expansion, for the well-equipped space that our researchers need and deserve.

In short, UBC Okanagan will be a centre for research, teaching and learning that is distinct in Canada and of sufficient quality to attract the best faculty and students from around the world.

## AREAS OF RESEARCH PRIORITY

UBC Okanagan will support all research that meets a minimum standard for quality and integrity. That said, as a small institution, it is prudent that we concentrate our efforts in those areas where we have the greatest chance of making an important contribution – locally and globally. The following eight subject areas represent current strengths or emerging opportunities.

- Entrepreneurship and Corporate Governance
- Health, Culture and Diversity
- Indigenous Communities and Contemporary Issues
- Innovations in Teaching and Learning
- Innovative Systems, Technologies and Processes
- Managed Land Use, Agriculture and Natural Products
- Sustainable Environments and Populations
- Understanding Community, Narrative and Identity



## **AREAS OF RESEARCH PRIORITY**

### **Entrepreneurship and Organizational Governance**

This theme recognizes the gathering need for reform in industrialized economies and in organizational governance. Some cross-disciplinary research may concentrate on structural transformations, such as from traditional manufacturing industries to service and knowledge industries like tourism and technology. Other research may focus on philosophical issues: e.g., how to maximize shareholder wealth, protect finite resources and create distributional models that are fair, ethical and sustainable. Seeking organizational structures and legal systems that are flexible, responsive, innovative, resource efficient and dynamic, research will leverage social science knowledge in human behaviour, motivation, group dynamics, organizational culture, social justice and ethics, economic growth and wealth distribution. It will also incorporate environmental science and engineering, especially in the search for adaptive technologies.

### **Health, Culture and Diversity**

Interdisciplinary collaboration is a key feature of this area, which emphasizes the promotion of health, the prevention of disparities arising from economic, social or cultural factors and the enhancement of quality of life in rapidly expanding urban and rural communities. The Okanagan Valley faces challenges that are increasingly common in many regions in Canada. Sparse rural populations rely on limited and often distant facilities and delivery systems for health and social care. Urban populations are aging ahead of the national demographic curve. There are mixed race and cultural communities whose health care options and outcomes are affected by disparities in social status and economic conditions. Thus, in serving the research needs of the immediate region, we may produce results of national and international significance on issues including determinants of health, disease susceptibility, and environmental factors emerging from population growth and cultural diversity.

### **Indigenous Communities and Contemporary Issues**

Unresolved tensions between Indigenous and Settler societies are not limited to the Okanagan, or even to Canada. UBC Okanagan is particularly well-placed to pursue research in this area. It is mandated by an Academic Plan that promotes the development of respectful and mutually advantageous relationships with Indigenous communities. Building on healthy external partnerships established by Okanagan University College, this interdisciplinary area of study focuses on contemporary communities, concentrating on the continuing significance of Indigenous practices, traditions and innovations in the contemporary world.



## **Innovations in Teaching and Learning**

Enriching the teaching and learning experience is one of the highest priorities in the whole UBC system. The opportunity to pursue research and scholarship in teaching and learning methodology is recognized across disciplines for diverse student audiences at all levels. UBC Okanagan's small size encourages this learner-centered focus encouraging faculty and students' involvement in discovery and inquiry valuing both the scholarship and practical impact of research. Specific areas of inquiry will include learning and cognition, instructional processes, education and society, cultures and curricula, and technology and learning.

## **Innovative Systems, Technologies and Processes**

This theme applies to research in materials science, energy systems, health care, natural and built environments and information technology. New materials, microsystems and communications have potential to address issues in health, natural resources, energy and the environment. Advances in nanomaterials, microsystems (especially sensors and wireless devices) and communications systems will result in new technologies. Research in the areas of chemical and biological catalysis could advance the sustainable production of food, materials and medicines – by reducing consumption, waste, energy use and pollution. The study of optimization may also reveal and promote implementation strategies that create commercial opportunities locally and nationally. Any successes may also enhance research opportunities in other disciplines.

## **Managed Land Use, Agriculture and Natural Products**

The Okanagan region is known for its high-value viticulture, horticulture and forest products as well as its expertise in food processing, beverage production, natural plant products and agri-tourism. UBC Okanagan is already part of that success, boasting partnerships – local and global – with indigenous communities, growers, forest managers, government laboratories and industry. Multidisciplinary research will focus on agriculture and forestry practices that promote responsible use of natural resources. It will support agricultural diversification, develop and test industrial and health related products (such as by proving the efficacy of traditional medicinal plants) and develop social and economic policies affecting labour, demographic sustainability, and land use. The broad goal is a multidisciplinary research approach that helps sustain the environmental, social and economic health of the region.



## **Sustainable Environments and Populations**

Climate change, water use, population growth, habitat conversion and biodiversity loss are all pressing global issues, for which the Okanagan region presents a natural laboratory – especially given the region's diverse aquatic and terrestrial ecosystems and habitats and the pressure of human activities on a constrained land base. For example, a high concentration of Canada's endangered and threatened species are found here. With established multidisciplinary strengths in the Watershed Science research group, the Centre for Species at Risk and Habitat Studies, and the new Okanagan Sustainability Institute, UBC Okanagan has an opportunity to address air and water quality, species diversity and conservation, inter-jurisdictional issues and conflicts related to resource development and land management and planning. Research on environmental quality, adaptive responses and sustainable development will inform management and policy decisions that contribute to healthy environments for people and other organisms.

## **Understanding Community, Narrative and Identity**

Several of the foregoing research areas seek to expand human knowledge in specific areas, from the properties of a particular material, to the efficacy of a particular health treatment regime. One research area seeks to expand our knowledge about the best ways to learn and to teach. In this area, we seek a deeper understanding of how humans comprehend their surroundings; how we form and record ideas; how we tell our own stories and how we absorb and understand the stories of those around us; how we entertain and why we find certain things entertaining. The research involves theories of creativity and cognition, and examines the effects of contemporary culture. UBC Okanagan has particular research strength in understanding the transformative role that new forms of cultural production and media (including digital technology) play in the fine and performing arts and how new media have transformed our sense of perspective, community and social belonging. The research is inevitably interdisciplinary, connecting to the study of art, performance, literature and film. It is also rich with potential: as we refine our knowledge of how humans understand art, culture, politics, and social discourse, how they connect with their many communities (or what frustrate those connections). With this we may contribute to the effectiveness of teaching and learning in other disciplines, perhaps even to the comprehension and resolution of social and cultural issues – especially those that are being exacerbated by the effects of new media or those for which some new medium may actually make a much greater contribution.



## **ACTION ITEMS**

The following are six general areas for attention, each with strategies to support research.

### **PROVIDE ADEQUATE, UP-TO-DATE, WELL-EQUIPPED RESEARCH SPACE**

UBC Okanagan is committed to providing research space befitting the world-class quality of our faculty and the high expectations for our research. The following are plans and strategies to ensure space requirements will be addressed in the short to medium term:

#### *Strategies*

- 1.1 Two buildings with a combined total of 7,640 square meters of space have commenced construction and are scheduled for completion in September 2010. A further 1,220 square meters of space is on the drawing board; making space available by 2011. These new facilities will include labs, galleries, studios, media labs and performance spaces.
- 1.2 Develop information technology infrastructure in accordance with the information technology plan.
- 1.3 Provide extended hours of services on campus, including building ventilation and lighting systems, restaurants and parking.
- 1.4 Pursue CFI grants and other sources of major capital funding. Ensure that areas are designated in the Campus Plan for additional research facilities to be built with these funds.





## **PROVIDE GENERAL RESEARCH SUPPORT**

With the creation of a Research Office, we have begun to put into place some of the administrative supports that are necessary for excellent research to thrive. The following strategies will bolster that support:

### ***Strategies***

- 2.1 Develop a reward, award and acknowledgement system for faculty and students aligned with the research vision and strategy.
- 2.2 Establish a dedicated resource to support large research grant proposal writing.
- 2.3 Establish a matching fund for strategic research initiatives.
- 2.4 Establish new graduate scholarships.
- 2.5 Recruit renowned faculty in strategic research areas to serve as research magnets.
- 2.6 Offer a professional development program for graduate students.
- 2.7 Provide RA and TA opportunities for graduate students.
- 2.8 Recruit excellent graduate students.
- 2.9 Create research opportunities for all fourth-year undergraduate students.
- 2.10 Provide the opportunity for spousal employment assistance for faculty through the university's industry and community network.



## **CREATE OPPORTUNITIES FOR SOCIAL INTERACTION AND RESEARCH EXCHANGE AND COLLABORATION**

You cannot mandate serendipity, but you can frustrate it. UBC Okanagan is committed to creating and protecting the physical spaces and social occasions that will promote interaction, among faculty, between faculty and students and among potential collaborators in the community, in other institutions and in all of our communities of interest. For planning purposes, that means that lunch rooms and lounges should not be considered labs or classrooms in the waiting, but rather resource rooms that are important to the interdisciplinary academic and research mandate.

### ***Strategies***

- 3.1 Encourage research leaders to build teams to target funding opportunities in key research areas.
- 3.2 Develop social venues for faculty (and for faculty and students) to facilitate academic and research exchange.
- 3.3 Integrate faculty and graduate student research and teaching spaces.
- 3.4 Develop a research mentorship program for graduate students.
- 3.5 Organize communities of practice and conferences for sharing research and ideas across disciplines.
- 3.6 Secure internal grants for collaborative initiatives.
- 3.7 Establish social and residential space on campus for academic and research exchange.
- 3.8 Provide opportunities for visiting scholars.
- 3.9 Promote social events that facilitate research interactions within and across disciplines.



## **CULTIVATE A SATISFYING AND STIMULATING PROFESSIONAL ENVIRONMENT**

UBC Okanagan recognizes the importance of maintaining an open-minded, satisfying and stimulating professional and social environment that promotes diversity and welcomes the pursuit of eclectic academic interests:

### ***Strategies***

- 4.1 Secure an adequate allocation of faculty time for research.



## **COLLABORATE WITH COMMUNITIES OF INTEREST – LOCALLY AND GLOBALLY**

UBC Okanagan is committed to serving the research needs of the Okanagan, and we are confident that innovations we generate here may also translate well for application in other communities and regions, in Canada and around the world.

But our current **communities of interest** are not defined – or confined – geographically. UBC Okanagan researchers are already connected to communities around the world, already pursuing research with a global reach. The university will continue to nurture those relationships and to support new collaborations that flow naturally from our Areas of Research Priority.

### *Strategies*

- 5.1 Establish a community-University liaison office.
- 5.2 Establish an off-campus research forum.
- 5.3 Establish a matching fund for public-private partnerships.
- 5.4 Establish an administrative resource to support external partnerships.
- 5.5 Develop research opportunities for graduate and undergraduate students with partner organizations including internships, service learning, co-op and practice.
- 5.6 Extend the annual Celebrate Research Week to engage the community by organizing interactive research events for children and adults.
- 5.7 Promote engagement concepts such as the learning garden.
- 5.8 Develop a catalogue of faculty research expertise.



## **ESTABLISH CONSISTENT AND TRANSPARENT DECISION-MAKING PROCESSES**

UBC O will establish consistent, transparent management decision-making processes that give faculty, staff, students and research partners' confidence in our accountability and reliability:

### *Strategies*

- 6.1 Maintain standards of consistency and transparency in all research-related decisions.
- 6.2 Establish an inclusive and collaborative approach to resource allocation.
- 6.3 Convey key management decisions promptly to all faculty.
- 6.4 Evaluate new faculty proposals in a timely fashion.
- 6.5 Develop a manual of all administrative processes.